APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/271,011	03/17/1999	MOHAN V. KALKUNTE	82771.P270C2	3401

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EXAMINER
DUONG, FRANK

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 07/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.		Applicant(s)	
Office Action Summary	09/271,011		KALKUNTE ET AL.	*Mk*
	Examiner		**Art Unit**	
	Frank Duong		2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _17 March 1999_ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1. This Office Action is a response to the communication dated 03/17/1999. Claims 1-

20 are pending in the application.

Claim Objections

2. Claims 10 and 15 are objected to because of the following informalities:

As per claim 10, line 6, "plurlaity" should read --plurality--.

As per claim 15, line 1, ".The" should read --The--.

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11
F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225
USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*,
418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be
used to overcome an actual or provisional rejection based on a nonstatutory double
patenting ground provided the conflicting application or patent is shown to be commonly
owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a
terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with
37 CFR 3.73(b).

3. Claims 1-20 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-20 of

copending Application No. 09/271,008. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the claimed subject matter of

claims 1-20 of the instant application encompasses the claimed invention of claims 1-10

of the above copending patent application. Evidence can be found below:

Independent claim 1 of the application calls for "*A method for preserving frame*

order across an aggregated link **comprised of a plurality of virtual links each**

supporting a particular transmission rate, *the method comprising:*

a) receiving up to a plurality of indication denoting commencement of **frame**

transmission **on each of the virtual links**; *and*

b) assigning a plurality of pointer values to a corresponding plurality of records in

the pointer value buffer *associated with* **each of the virtual links** *based, at least in*

part, on the relative order in which **data frames** *are transmitted on each of* **the virtual**

links."

Independent claim 1 of the copending application calls for "*A method for*

preserving frame order across an aggregated link comprising:

a) receiving up to a plurality of indications denoting commencement of **data**

packet *transmission* **over the aggregated link having a plurality of virtual links**

each associated with a particular quality of service level; *and*

b) assigning a plurality of pointer values to a corresponding plurality of records in

appropriate buffers of a plurality of pointer value buffer *associated with* **the**

corresponding plurality of virtual links *based, at least in part, on the relative order in*

which **data packets** *are transmitted on each of* **the links**."

As clearly corresponding in the bolded words above, the differences between

claim 1 of the instant application and claim 1 of the copending application are the

wording in the claims such as "*data frames*" and "*data packets*" or "*transmission rate*"

and "*quality of service level*". However, the terms "*data frames*" and "*data packets*" are

used interchangeable (see specification, page 10, lines 7-8) and the terms

"transmission rate" is obviously referred to "quality of service level".

The subject matter claimed in the instant application is fully disclosed in the

referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant

application are claiming common subject matter. Furthermore, there is no apparent

reason why applicant would be prevented from presenting claims corresponding to

those of the instant application in the other copending application. Thus, the provisional

obvious-type double patenting rejection of claim 1 is proper.

Other independent claims in the instant applications are rejected by the same

rationale applied to claim 1 discussed above.

This is a provisional obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

4. Claims 1-20 are provisionally rejected under the judicially created doctrine of

obviousness-type double patenting as being unpatentable over claims 1-22 of

copending Application No. 09/131,141. Although the conflicting claims are not identical,

they are not patentably distinct from each other because the claimed subject matter of

claims 1-20 of the instant application is common and encompasses the claimed

invention of claims 1-22 of the above copending patent application.

Evidence can be, explicitly or obviously, found by comparing the independent

claims of the instant application against the independent claims of the above copending

patent application.

The subject matter claimed in the instant application is fully disclosed in the

referenced copending application and would be covered by any patent granted on that

copending application since the referenced copending application and the instant

application are claiming common subject matter. Furthermore, there is no apparent

reason why applicant would be prevented from presenting claims corresponding to

those of the instant application in the other copending application.

This is a provisional obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Simmons et al. (USP 6,192,028) (hereinafter "Simmons") in view of Frazier et al. (USP

5,784,559) (hereinafter "Frazier").

Regarding **claim 1**, in according to '028, Figures 2-4, col. 6, line 5 to col. 10, line 12, Simmons discloses a flow control method (corresponding to "method for preserving frame order of a plurality of frames" in a half duplex Ethernet network (Figure 2) (corresponding to "plurality of communication links"), the method comprising, among other things: assigning a pointer value to each of a plurality of records in a buffer receiving a corresponding plurality of frames based, at least in part, on a destination port (*note: col. 8, lines 21-43, Simmons discloses rules checker 42 or 68 places the port vector and the corresponding frame pointer into the port vector FIFO 63. Then, the port vector FIFO 63 assigns the frame pointer to the appropriate destination port(s) by placing the frame pointer into the top of the appropriate output queue 67 (corresponding to claimed "based on a relative order in which the data frames are transmitted on each of the virtual links" because the frame pointer is placed into the top of the output queue 67). Thus, the recitation thereat reads on the claimed limitation set forth.*)

Note that Simmons, in according to col. 6, lines 50-56, also discloses one of the advantages of using external rule checker 44 is increasing the capacity of the network. Moreover, Simmons, in according to Figure 2A, also shows signal RX_DVB, as known in the Gigabit Ethernet world is Received Data Valid signal, when enable causes MII 28 in the interface 12 to receive data on RXDB.

Simmons fails to explicitly disclose the step of receiving up to a plurality of indications denoting commencement of frame transmission on each of the virtual links. However, the step of receiving up to a plurality of indications denoting the start of frame transmission on each of the virtual links is well known and discloses by Frazier.

In according to '559, Figures 1, 3C-3D and 6, the abstract and col. 6, lines 6-9,

col. 9, line 31 to col. 10, line 24, and col. 13, lines 39-42, Frazier discloses a flow control

method in a full duplex Ethernet network comprising, among other steps, the step of

receiving up to a plurality of indications denoting the start of frame transmission on each

of the virtual links (*note: '559, col. 6, lines 6-9, Frazier discloses when RX_DV is*

asserted on the MII, MAC receive processing logic accepts and process data from the

physical layer, and then passes the processed data to the logical link control layer and

col. 13, lines 39-42, Frazier discloses the receive carrier sense variable may be derived

directly form the MII signal RX_DV, and is used to indicate incoming bits. Thus, the

recitation thereat is corresponding to the claimed step of receiving.)

It would have been obvious to a skilled artisan at the time of the invention to

implement Frazier's teaching into Simmons' method to arrive the claimed invention with

a motivation of providing a flow control mechanism for a full-duplex Ethernet network as

well as increasing the network capacity.

Regarding **claim 2**, in addition to features called for in base claim 1 (*see*

rationales pertaining the rejection of base claim 1 discussed above), the claim further

calls for receiving the data frames transmitted on each of the plurality of virtual links in a

common receive buffer (*see '028, element 34 and the description at col. 6, lines 15-20*

and col. 10, lines 13-22). Thus, Simmons in view of Frazier discloses the claimed

invention.

Regarding **claim 3**, in addition to features called for in base claim 2 (*see*

rationales pertaining the rejection of base claim 2 discussed above), the claim further

calls for reading the received frames from the common receive buffer (34) based, at least in part, on the pointer value assigned in each of the pointer value buffers ('see '028, col. 8, lines 34-43). Thus, Simmons in view of Frazier discloses the claimed invention.

Regarding **claim 4**, in addition to features called for in base claim 3 (*see rationales pertaining the rejection of base claim 3 discussed above*), the claim further calls for wherein frames are promoted from the received buffer with priority given to pointer value order in higher transmission rate pointer value buffers (see '028, col. 8, lines 21-43 wherein Simmons discloses the port vector FIFO 63 assigns the frame pointer to the destination port by placing the frame pointer into the top of the appropriate output queue 67, queuing the transmission of the data frame. Thus, Simmons discloses frames are promoted from the received buffer (34) with priority given to pointer value order. At col. 10, lines 33-40, Simmons further discloses the base address for the entire memory 34 is programmable. In according to Fig. 1, Simmons shows the integrated multiport switch 12 serves 24 10Mb/s networks stations 14 and 2 100Mb/s networks stations 16. Thus, It is obvious to those skilled in the art to associated priority given to pointer value order in higher transmission rate pointer value buffers to better server the network station users with the higher transmission rate by programming the base addresses in the memory 34). Thus, Simmons in view of Frazier discloses the claimed invention.

Regarding **claim 5**, in addition to features called for in base claim 1 (*see rationales pertaining the rejection of base claim 1 discussed above*), the claim further

calls for wherein a plurality of pointer value buffers are used to store pointer values

denoting the commencement of transmission of frames on a corresponding plurality of

virtual links supporting a particular transmission speed (see '028, Fig. 7B, col. 13, line

29 to col. 14, line 28). Thus, Simmons in view of Frazier discloses the claimed invention.

Regarding **claim 6**, in addition to features called for in base claim 1 (*see*

rationales pertaining the rejection of base claim 1 discussed above), the claim further

calls for wherein frames are promoted in pointer value order with priority given pointer

values stored in the pointer value buffers associated with higher transmission rate

virtual links (see '028, col. 8, lines 21-43 wherein Simmons discloses the port vector

FIFO 63 assigns the frame pointer to the destination port by placing the frame pointer

into the top of the appropriate output queue 67, queuing the transmission of the data

frame. Thus, Simmons discloses frames are promoted in pointer value order with

priority given pointer values stored in the pointer value buffers. At col. 10, lines 33-40,

Simmons further discloses the base address for the entire memory 34 is programmable.

In according to Fig. 1, Simmons shows the integrated multiport switch 12 serves 24

10Mb/s networks stations 14 and 2 100Mb/s networks stations 16. Thus, It is obvious to

those skilled in the art to associated priority given to pointer value order in higher

transmission rate pointer value buffers to better server the network station users with

the higher transmission rate by programming the base addresses in the memory 34).

Thus, Simmons in view of Frazier discloses the claimed invention.

Regarding **claim 7**, it is well known in the Ethernet art that the indication

(RX_DV) is an analog indication.

Regarding **claim 8**, see '028, Fig. 2A, RX_DVB or '559, Fig. 5, RX_DV.

Regarding **claim 9**, see '028, Figs. 4-5.

Regarding **claims 10-20**, the claims are rejected by the same rationales applied to claims 1-9.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

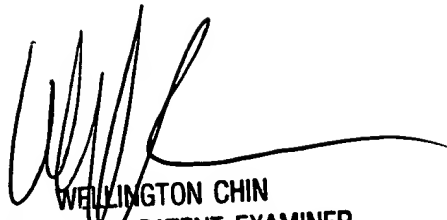Mueller et al. (USP 5,430,710).

Hendel et al. (USP 6,049,528).

Bellenger (USP 5,802,054).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Duong whose telephone number is (703) 308-5428. The examiner can normally be reached on 7:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Frank Duong
July 17, 2002

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SUPERVISORY PATENT EXAMINER
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